

Listing of Claims**1. - 31. (cancelled)**

1 **32. (new) A vibratory separator for separating components of material**
2 **introduced thereto, the vibratory separator comprising**

3 **a basket**

4 **a collection receptacle beneath the basket,**

5 **a deck on the basket for mounting a screen assembly thereon, the**
6 **deck having a plurality of deck pins projecting upwardly therefrom,**

7 **a screen assembly on the deck, the screen assembly comprising**
8 **screening material,**

9 **the screening material having a plurality of screening openings**
10 **therethrough suitable for the flow of fluid therethrough, the fluid from the**
11 **material introduced into the basket,**

12 **the screening material having a plurality of spaced apart pin holes**
13 **therethrough, each pin hole having therein part of one of the deck pins,**

14 **vibratory apparatus connected to the vibratory separator for**
15 **vibrating the screen assembly,**

16 **holding apparatus for holding the screen assembly on the deck**
17 **with a part of a deck pin in each pin hole,**

18 **two side ledges on spaced-apart sides of the basket, the side**
19 **ledges positioned for supporting spaced-apart sides of the screen assembly,**

20 **each side ledge having an upper surface inclined downwardly from**
21 **a basket side toward an interior of the basket,**

22 **each deck pin projecting upwardly from one of the side ledges, and**
23 **the screen assembly having two spaced-apart edges each having**
24 **pin holes therethrough, each of said edges of the screen assembly resting on**
25 **one of said upper surfaces,**

26 **the holding apparatus including two spaced-apart rails, each rail**
27 **positioned movably above one of the two side ledges, each rail selectively**
28 **movable downwardly to abut an edge of the screen assembly and to push said**
29 **edge against the upper surface of said side ledge thereby bending said screen**

30 assembly so that said edges assume an inclination corresponding to the inclined
31 upper surface of said corresponding side ledge,

32 selectively movable apparatus for moving the rails downwardly
33 against said edges, and

34 each rail having a plurality of rail holes therein, each rail hole
35 located and configured for receiving a portion of a deck pin when the rail abuts
36 the screen assembly, said deck pin also passing through an edge of the screen
37 assembly.

1 33. (new) The vibratory separator of claim 32 wherein the screening material
2 comprises a plurality of layers of screen mesh.

1 34. (new) The vibratory separator of claim 32 wherein the vibratory separator
2 is a shale shaker and the material includes drilling fluid with drilled cuttings entrained
3 therein.

1 35. (new) The vibratory separator of claim 32 wherein the deck includes curved
2 support for the screen assembly and the rails hold edges of the screen assembly
3 against the side ledges so that the screen assembly is held in a crowned shape on said
4 curved support.

1 36. (new) The vibratory separator of claim 35 further comprising
2 the holding apparatus including two spaced-apart rails, one rail on
3 each of two spaced-apart sides of the basket, each rail movable downwardly
4 to abut an edge of the screen assembly, and

5 movement apparatus connected to the basket for selectively
6 moving the rails down to abut the screen assembly.

1 37. (new) The vibratory separator of claim 36 further comprising
2 power apparatus connected to the movement apparatus for
3 powering the movement apparatus for powered movement of the rails.

1 38. (new) The vibratory separator of claim 37 further comprising
2 the power apparatus including a plurality of selectively movable
3 piston apparatuses above each rail, each selectively movable piston apparatus
4 including a movable piston with a lower end releasably connected to a
5 corresponding rail.

1 39. (new) The vibratory separator of claim 32 further comprising
2 manually operable apparatus for selectively moving the rails.

1 40. (new) The vibratory separator of claim 37 wherein the power apparatus is
2 fluid powered by fluid under pressure.

1 41. (new) The vibratory separator of claim 32 wherein the deck pins are
2 inclined toward an interior of the basket, each side rail pushing down on an edge of
3 the screen assembly thereby tensioning the screening material.

1 42. (new) The vibratory separator of claim 32 further comprising
2 a bladder system with inflatable bladder apparatus for pushing
3 down on spaced-apart edges of the screen assembly to hold the screen
4 assembly on the deck.

1 43. (new) The vibratory separator of claim 42 wherein the bladder apparatus
2 directly contacts a top surface of the screening material providing a seal between an
3 interface of a lower surface of the bladder apparatus and the top surface of the
4 screening material.

1 44. (new) The vibratory separator of claim 32 wherein the two spaced-apart
2 rails seal against a top surface of the screening material.

1 45. (new) A holding system for holding a screen assembly on a deck of a
2 vibratory separator, the vibratory separator having two spaced-apart sides between
3 which the screen assembly is held, the deck including two side supports for
4 supporting two spaced-apart sides of the screen assembly, each side support having
5 an upper surface inclined downwardly from its respective vibratory separator side
6 toward an interior of the vibratory separator, the holding system comprising

7 two spaced-apart rails, each rail located on a side of the vibratory
8 separator above an upper inclined surface of a corresponding side support,
9 each rail selectively movable downwardly to hold an edge of the
10 screen assembly against an upper inclined surface of a side support thereby
11 inclining said edge to assume an inclination corresponding to the upper inclined
12 surface,

13 each of said rails having holes and each side support has a plurality
14 of pins spaced-apart thereon and projecting upwardly therefrom from said upper

15 surface, said pins for projection through said screen assembly and into said
16 holes of said rails.

1 46. (new) The holding apparatus of claim 45 wherein the rails hold the screen
2 assembly in sealing contact with the deck.

1 47. (new) The holding apparatus of claim 45 wherein the screen assembly
2 comprises screening material and downward force of the rails tensions the screening
3 material of the screen assembly.

1 48. (new) A method for holding a screen assembly in a vibratory separator, the
2 method comprising

3 installing a screen assembly on a deck of a vibratory separator, the
4 vibratory separator having two spaced-apart sides between which a screen
5 assembly is held, the deck including two side supports for supporting two
6 spaced-apart sides of a screen assembly, and

7 holding the screen assembly in place with a holding system, the
8 holding system comprising two spaced-apart rails, each rail located on a side
9 of the vibratory separator above a corresponding side support, each rail
10 selectively movable downwardly to hold an edge of the screen assembly against
11 a side support, each of said rails having holes, and each side support having a
12 plurality of pins spaced-apart thereon and projecting upwardly therefrom, said
13 pins for projection through said screen assembly and into said holes of said
14 rails.

15 49. (new) A method for processing material with a vibratory separator, the
16 method comprising

17 introducing material to be processed to a vibratory separator, the
18 vibratory separator comprising a basket, a collection receptacle beneath the
19 basket, a deck on the basket for mounting a screen assembly thereon, the deck
20 having at least one deck pin projecting upwardly therefrom, and the screen
21 assembly comprising screening material, the screening material having a
22 plurality of screening openings therethrough suitable for the flow of fluid
23 therethrough, the fluid from the material introduced into the basket, the
24 screening material having at least one pin hole therethrough, said pin hole for

25 receiving part of one of the at least one deck pin, vibratory apparatus
26 connected to the vibratory separator for vibrating the screen assembly, a
27 holding system for holding the screen assembly on the deck, the holding system
28 comprising two spaced-apart rails, each rail located on a side of the vibratory
29 separator above a corresponding side support, each rail selectively movable
30 downwardly to hold an edge of the screen assembly against a side support,
31 each of said rails having at least one hole for receiving a portion of said at least
32 one deck pin, and

33 separating components of the material with the screen assembly.

1 50. A vibratory separator for separating components of material introduced
2 thereto, the vibratory separator comprising

3 a basket,

4 a collection receptacle beneath the basket,

5 a deck on the basket for mounting a screen assembly thereon, the
6 deck having a plurality of deck pins projecting upwardly therefrom,

7 a screen assembly on the deck, the screen assembly comprising
8 screening material,

9 the screening material having a plurality of screening openings
10 therethrough suitable for the flow of fluid therethrough, the fluid from the
11 material introduced into the basket,

12 the screening material having a plurality of spaced apart pin holes
13 therethrough, each pin hole having therein part of one of the deck pins,

14 vibratory apparatus connected to the vibratory separator for
15 vibrating the screen assembly.

16 holding apparatus for holding the screen assembly on the deck
17 with a part of a deck pin in each pin hole, the holding apparatus including two
18 spaced-apart rails, each rail positioned movably above the screen assembly,
19 each rail selectively movable downwardly to abut an edge of the screen
20 assembly,

21 each rail having a plurality of rail holes therein, each rail hole
22 located and configured for receiving a portion of a deck pin when the rail abuts

23 the screen assembly, said deck pin also passing through an edge of the screen
24 assembly, and

25 selectively movable apparatus for moving the rails downwardly
26 against the screen assembly.

1 51. (new) The vibratory separator of claim 50 wherein the screening material
2 comprises a plurality of layers of screen mesh.

1 52. (new) The vibratory separator of claim 50 wherein the vibratory separator
2 is a shale shaker and the material includes drilling fluid with drilled cuttings entrained
3 therein.

1 53. (new) A holding system for holding a screen assembly on a deck of a
2 vibratory separator, the vibratory separator having two spaced-apart sides between
3 which the screen assembly is held, the deck including two side supports for
4 supporting two spaced-apart sides of the screen assembly, the holding system
5 comprising

6 two spaced-apart rails, each rail located on a side of the vibratory
7 separator above a corresponding side support,

10 each of said rails having holes, and

In The Specification:

Page 18, line 27: delete "880"

Page 19, line 5: delete " 882a" and add after "brackets" --882x--

Page 19, line 6: delete " 882b" and add after "walls" --882z--